

Malabar Biomethane Injection Plant



Jemena's Malabar Biomethane facility has been accredited as the first participant in the newly launched GreenPower Renewable Gas Certification.*

Australia's first biomethane-to-gas-network project is producing biomethane that is certified renewable and is being injected into Jemena's New South Wales gas distribution network.

Jemena and Sydney Water are working together to generate biomethane at the Malabar Wastewater Treatment Plant in South Sydney. The biomethane gas is being injected into Jemena's New South Wales gas distribution network – the largest in Australia with around 1.5 million customers.

Initially, the Malabar Biomethane Injection Plant is producing renewable biomethane equivalent to the gas usage of approx. 6,300 homes per year (by volume) with the potential to double the current capacity each year – equivalent to the natural gas usage of approx. 13,300 NSW homes per year, if put to use in the residential network.

The multi-million dollar project was jointly funded by Jemena and the Australian Renewable Energy Agency (ARENA) who provided up to \$5.9 million in grant funding.

What is Biomethane?

Biogas is derived from plant and animal by-products, agriculture, farming and human wastes. Biogas is produced through a process called anaerobic digestion, where bacteria breaks down organic waste and gas is released. This can be processed further to produce biomethane that meets the quality specifications for injecting gas into the existing gas distribution network.

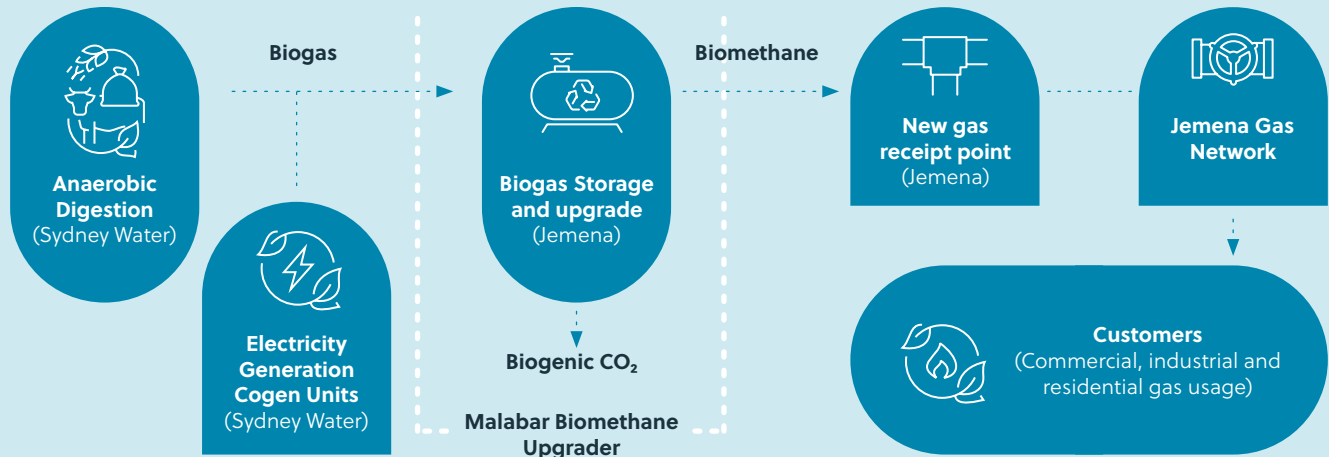
Biomethane is a reliable and responsive energy source that can help us transition to a lower-emissions economy. As a direct substitute for natural gas, it is compatible with our existing gas infrastructure and appliances.



*www.greenpower.gov.au/about-greenpower/renewable-gas-certification

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Biomethane produced at Malabar will displace natural gas when it is injected into the gas network. Methane is captured and re-used, instead of being released into the atmosphere from its original waste source, so there are no additional emissions in the production process.



Biomethane: Boosting the Circular Economy

Biomethane is an example of waste recovery and reuse in the circular economy. It is created by capturing biogas from decomposing agricultural, organic, and domestic waste, and removing the carbon dioxide. At our Malabar facility biomethane is being produced from wastewater, or biowaste.

Biomethane is indistinguishable from regular natural gas. It can be used seamlessly in the existing Jemena gas network, and can provide renewable energy to supply thousands of homes and businesses.



The Malabar Biomethane Injection Plant will demonstrate the potential of a waste-to-energy industry which can reduce carbon emissions by replacing other natural gas sources, while creating jobs and many other circular economy benefits.

The Malabar Biomethane Injection Plant and pilot production was co-funded by Jemena and ARENA (Australian Renewable Energy Agency).



Jemena's gas distribution network is the largest in NSW. It delivers natural gas to around 1.5 million residential and business customers, across Greater Sydney and parts of regional NSW.

ARENA is the government agency responsible for supporting the transition to net zero emissions by accelerating innovation for the benefit of Australian consumers and business.

According to ARENA's Bioenergy Roadmap 2021, the Australian bioenergy sector could contribute:

	By the 2030's	By the 2050's
Additional \$ GDP	\$ 10 billion	\$ 14 billion
Additional jobs	26,200	35,300
Emissions reductions (% of 2019 levels)	9%	12%
Extra landfill waste diverted (vs. 2019 levels)	6%	7%

Learn more about the Malabar Biomethane Injection Plant

The Malabar Biomethane Injection Plant is demonstrating how biomethane, as part of a renewable gas industry, can create commercial opportunities for local governments, industry and business, as well as helping to meet sustainability commitments and emissions targets. Ask us how.



Visit gorennewablegas.com.au

Contact us to get involved in renewable gas projects and initiatives, arrange a tour of facilities, to find out how renewable gas can benefit households, businesses and communities across NSW.



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